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54) Title: **NUCLEIC ACID ENCODING GAI GENE OF ARABIDOPSIS THALIANA**

57) Abstract

The *GAI* gene of *Arabidopsis thaliana* has been cloned, along with mutant and homologue gene sequences. Expression of such genes in plants affects characteristics of the plants including growth. *GAI* expression inhibits growth of plants, which inhibition is antagonised by gibberellin (GA). Expression of *gai* mutants confers a dwarf phenotype which is GA-insensitive. Manipulation of expression of *GAI* and *gai* genes in plants results in tall or dwarfed plants. Dwarf plants are useful in particular for reduction in crop losses resulting from lodging.

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